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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: NA01D020024BW
Luminaire:
Report No: 200401-B009
Test No: 200401-C009
LampCAT: BRIDGELUX 3030
Lamp flux(lm): 110.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 6.5900
Current(A): 0.1510
Power (W): 0.9950
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 102.80
Efficiency(%): 93.45%
Lumens(lm)/Power(W): 103.32
Central intensity(cd): 186.680
Maximum intensity(cd): 186.680
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=33.7
[C90/270]Total=33.7
Field angle(10%Imax): [C0/180]Total=74.1
[C90/270]Total=74.1
Maximum s/h(1/2): C0_180=0.55 C90_270=0.55
Maximum s/h(1/4): C0_180=0.59 C90_270=0.59
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.45%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 92.782%

Nata NA01D020024BW

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	186.680	0.000	0	.000%	.000%
1.0	186.230	0.178	0.178	.162%	.174%
2.0	184.859	0.533	0.711	.484%	.692%
3.0	182.517	0.879	1.59	.799%	1.546%
4.0	179.585	1.212	2.802	1.102%	2.725%
5.0	175.528	1.528	4.329	1.389%	4.212%
6.0	170.810	1.820	6.15	1.655%	5.982%
7.0	165.094	2.085	8.234	1.895%	8.010%
8.0	159.188	2.321	10.555	2.110%	10.268%
9.0	152.529	2.526	13.082	2.297%	12.725%
10.0	145.062	2.693	15.775	2.448%	15.345%
11.0	137.813	2.826	18.601	2.570%	18.095%
12.0	129.994	2.928	21.529	2.661%	20.942%
13.0	121.957	2.990	24.519	2.718%	23.851%
14.0	114.159	3.022	27.541	2.748%	26.791%
15.0	107.002	3.036	30.577	2.760%	29.744%
16.0	99.330	3.023	33.601	2.748%	32.685%
17.0	92.391	2.986	36.586	2.714%	35.590%
18.0	85.472	2.933	39.519	2.666%	38.442%
19.0	79.249	2.866	42.385	2.605%	41.230%
20.0	73.202	2.790	45.175	2.537%	43.944%
21.0	67.493	2.702	47.876	2.456%	46.572%
22.0	62.220	2.607	50.483	2.370%	49.108%
23.0	57.410	2.510	52.993	2.282%	51.550%
24.0	52.903	2.412	55.405	2.193%	53.896%
25.0	48.586	2.308	57.713	2.098%	56.141%
26.0	44.866	2.206	59.919	2.005%	58.287%
27.0	41.252	2.107	62.026	1.915%	60.336%
28.0	37.983	2.006	64.032	1.824%	62.287%
29.0	34.980	1.909	65.941	1.735%	64.144%
30.0	32.280	1.816	67.757	1.651%	65.911%
31.0	29.756	1.726	69.483	1.569%	67.590%
32.0	27.387	1.637	71.12	1.488%	69.183%
33.0	25.348	1.554	72.674	1.412%	70.694%
34.0	23.428	1.476	74.15	1.342%	72.130%
35.0	21.649	1.400	75.55	1.273%	73.492%
36.0	20.074	1.328	76.878	1.208%	74.784%
37.0	18.710	1.265	78.143	1.150%	76.015%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	17.339	1.203	79.346	1.094%	77.185%
39.0	16.130	1.142	80.489	1.039%	78.296%
40.0	15.054	1.088	81.576	.989%	79.354%
41.0	14.091	1.038	82.614	.943%	80.364%
42.0	13.177	0.991	83.605	.901%	81.328%
43.0	12.326	0.945	84.549	.859%	82.246%
44.0	11.595	0.903	85.452	.821%	83.125%
45.0	10.863	0.863	86.315	.785%	83.964%
46.0	10.209	0.824	87.139	.749%	84.766%
47.0	9.577	0.787	87.926	.715%	85.531%
48.0	9.028	0.752	88.679	.684%	86.263%
49.0	8.473	0.719	89.397	.653%	86.962%
50.0	7.931	0.684	90.081	.622%	87.627%
51.0	7.460	0.651	90.732	.592%	88.261%
52.0	7.017	0.621	91.354	.565%	88.865%
53.0	6.588	0.592	91.945	.538%	89.441%
54.0	6.195	0.563	92.509	.512%	89.989%
55.0	5.850	0.538	93.046	.489%	90.512%
56.0	5.505	0.513	93.56	.466%	91.011%
57.0	5.168	0.488	94.048	.444%	91.486%
58.0	4.873	0.464	94.512	.422%	91.938%
59.0	4.627	0.444	94.956	.404%	92.370%
60.0	4.359	0.425	95.381	.386%	92.782%
61.0	4.106	0.404	95.785	.367%	93.175%
62.0	3.902	0.386	96.17	.351%	93.551%
63.0	3.720	0.371	96.541	.337%	93.911%
64.0	3.523	0.355	96.896	.323%	94.257%
65.0	3.354	0.340	97.237	.309%	94.588%
66.0	3.199	0.327	97.564	.297%	94.906%
67.0	3.059	0.315	97.878	.286%	95.212%
68.0	2.939	0.304	98.182	.276%	95.508%
69.0	2.820	0.294	98.476	.267%	95.794%
70.0	2.714	0.284	98.76	.258%	96.070%
71.0	2.616	0.275	99.036	.250%	96.338%
72.0	2.524	0.267	99.303	.243%	96.598%
73.0	2.461	0.261	99.564	.237%	96.852%
74.0	2.391	0.255	99.819	.232%	97.100%
75.0	2.334	0.250	100.068	.227%	97.343%

Zonal flux distribution table

γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	2.271	0.244	100.313	.222%	97.580%
77.0	2.222	0.240	100.552	.218%	97.813%
78.0	2.173	0.235	100.788	.214%	98.042%
79.0	2.123	0.231	101.018	.210%	98.267%
80.0	2.102	0.228	101.246	.207%	98.488%
81.0	2.067	0.225	101.472	.205%	98.708%
82.0	2.004	0.221	101.692	.201%	98.923%
83.0	1.955	0.215	101.908	.196%	99.132%
84.0	1.863	0.208	102.116	.189%	99.334%
85.0	1.744	0.197	102.313	.179%	99.526%
86.0	1.448	0.174	102.487	.159%	99.695%
87.0	0.914	0.129	102.616	.118%	99.821%
88.0	0.591	0.082	102.699	.075%	99.901%
89.0	0.450	0.057	102.756	.052%	99.957%
90.0	0.359	0.044	102.8	.040%	100.000%

Zonal flux distribution table

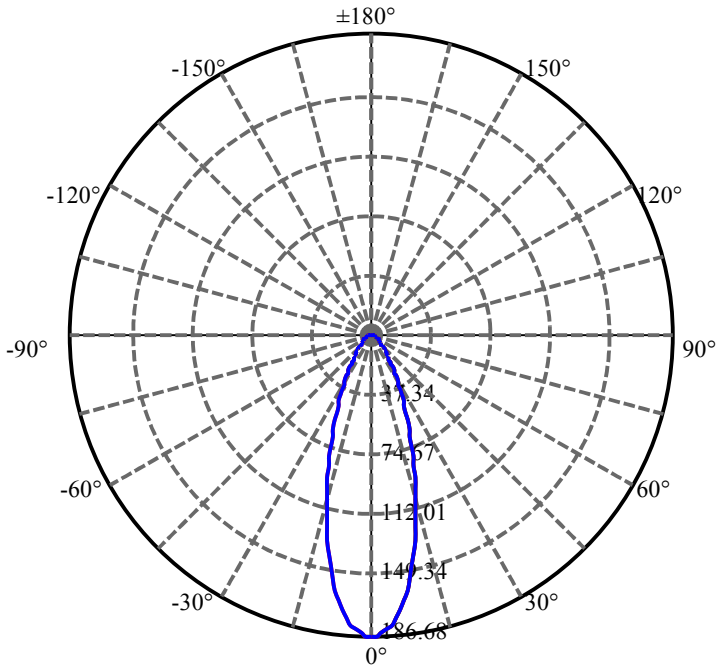
ZONAL LUMEN SUMMARY

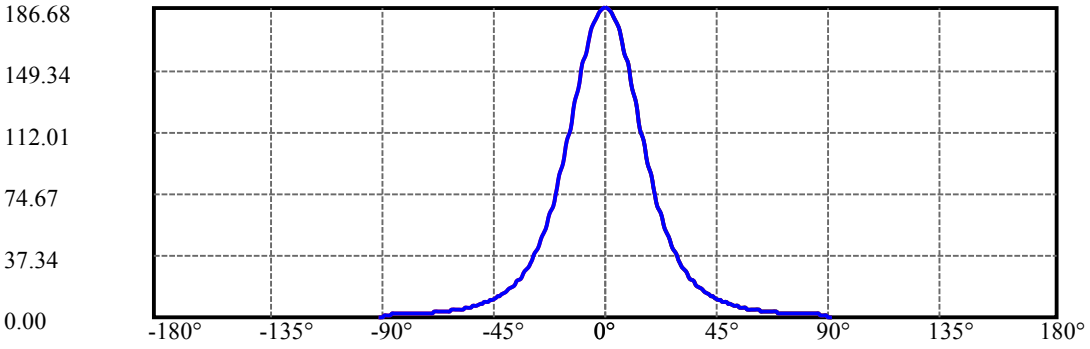
Zone	Lumens	%Lamp	%Fixt
0-30	67.76	61.60%	65.91%
0-40	81.58	74.16%	79.35%
0-60	95.38	86.71%	92.78%
0-90	102.76	93.41%	99.96%
0-120	102.76	93.41%	99.96%
0-180	102.80	93.45%	100.00%
60-90	7.80	7.09%	7.59%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-40.64	82.24	74.76%	80.00%

ZONAL LUMEN SUMMARY

0-10	15.77
10-20	29.40
20-30	22.58
30-40	13.82
40-50	8.50
50-60	5.30
60-70	3.38
70-80	2.49
80-90	1.51
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

Light Distribution Curve [Unit:cd]





C0(Max):

C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:37.0 Right:37.0
:C90/270Left:37.0 Right:37.0

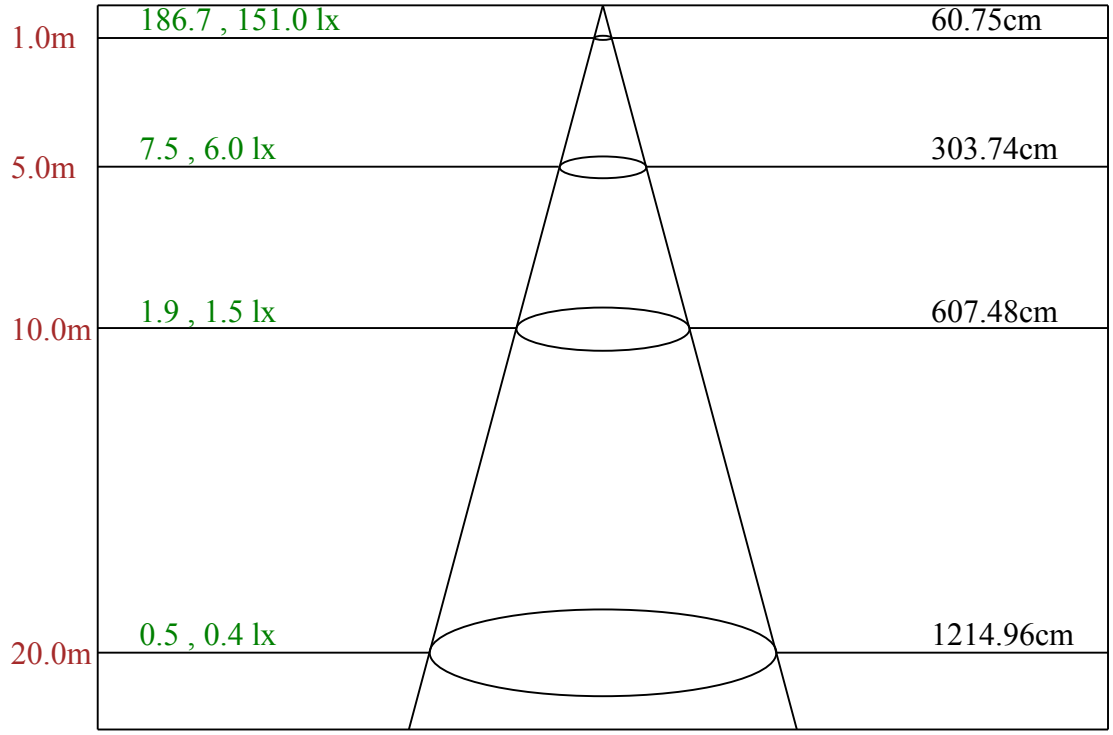
Beam Angle(50%Imax):C0/180Left:16.9 Right:16.9
:C90/270Left:16.9 Right:16.9

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/1
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Lux distance Curve



Max , Ave

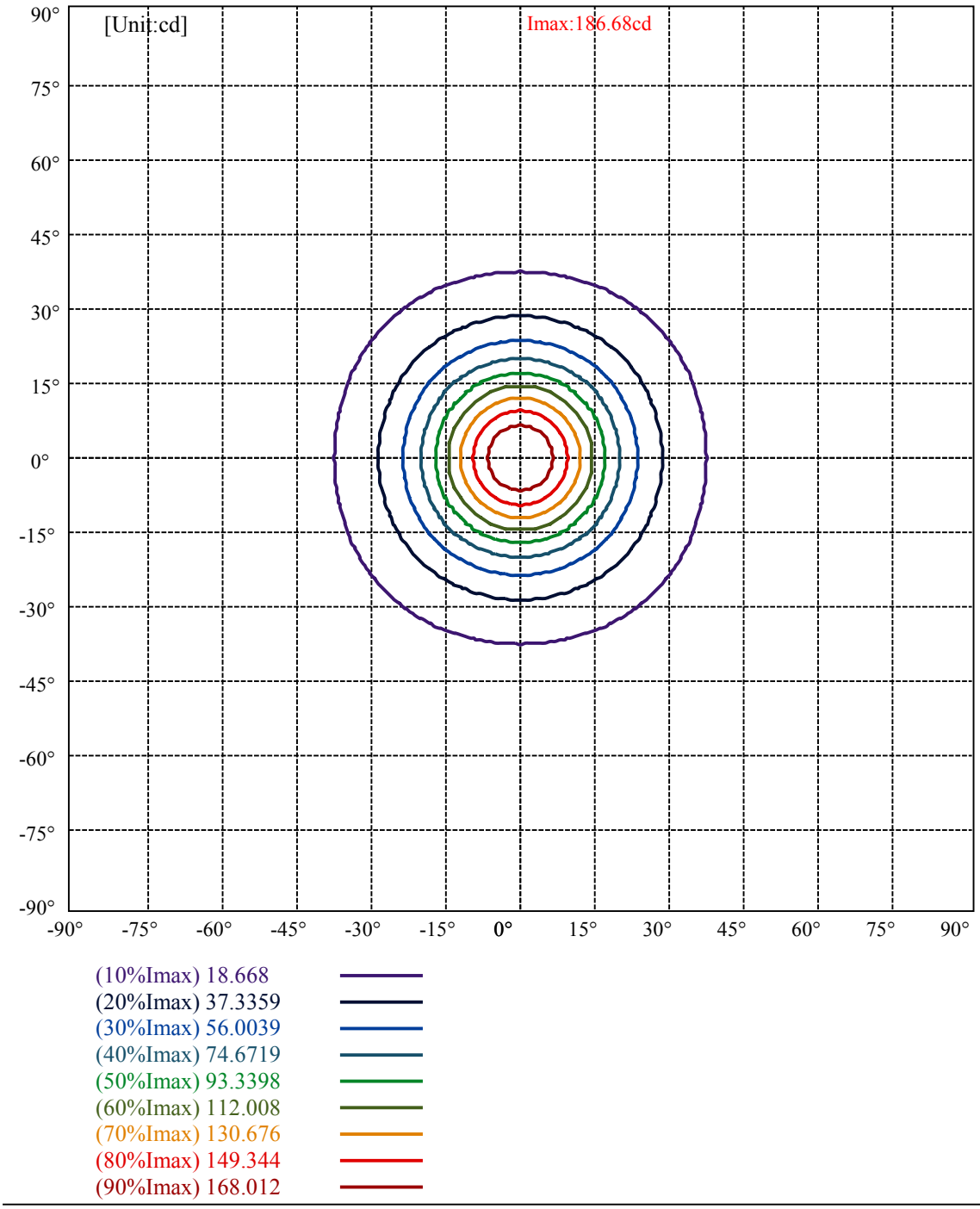
Beam angle of C0 plane 33.79

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/1
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO-Intensity(V-H)

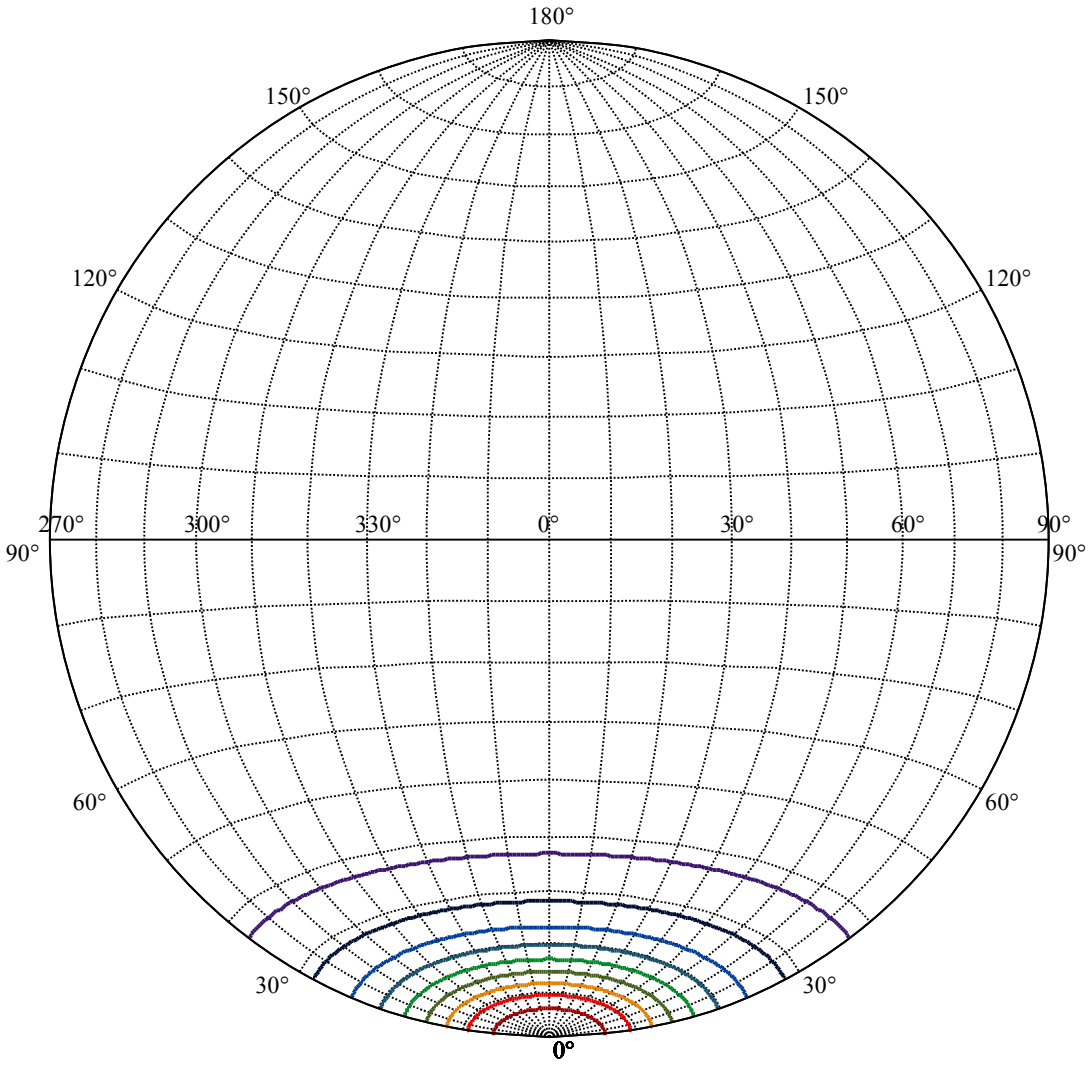


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/1
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:186.68

(10%Imax) 18.668
(20%Imax) 37.3359
(30%Imax) 56.0039
(40%Imax) 74.6719
(50%Imax) 93.3398
(60%Imax) 112.008
(70%Imax) 130.676
(80%Imax) 149.344
(90%Imax) 168.012

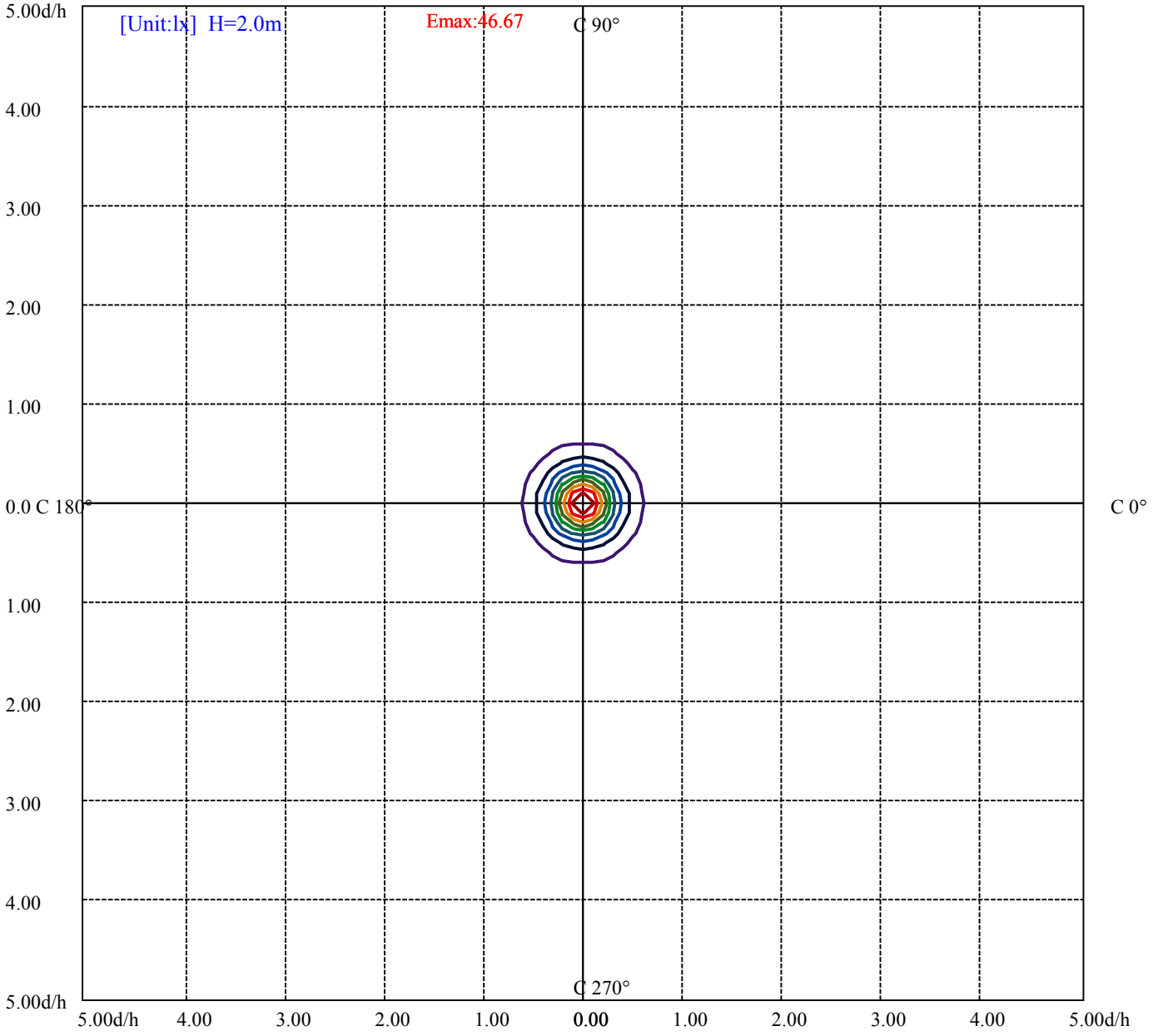
Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/1
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Nata NA01D020024BW

ISO illuminance diagram

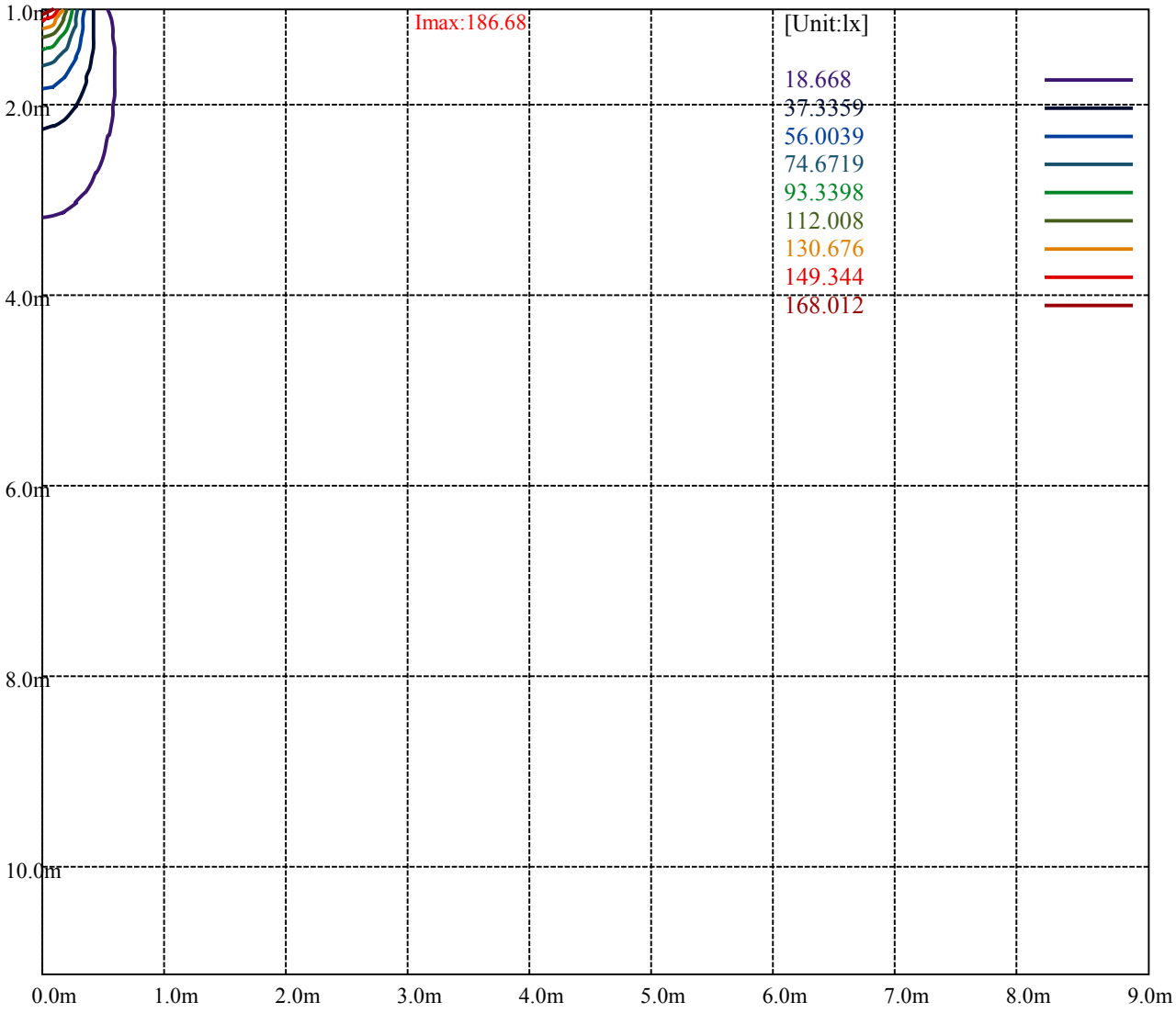


Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/1
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Space ISO Lux diagram



Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/4/1
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Nata NA01D020024BW

Luminance Limitting Curve(no luminous side)

Luminance Table

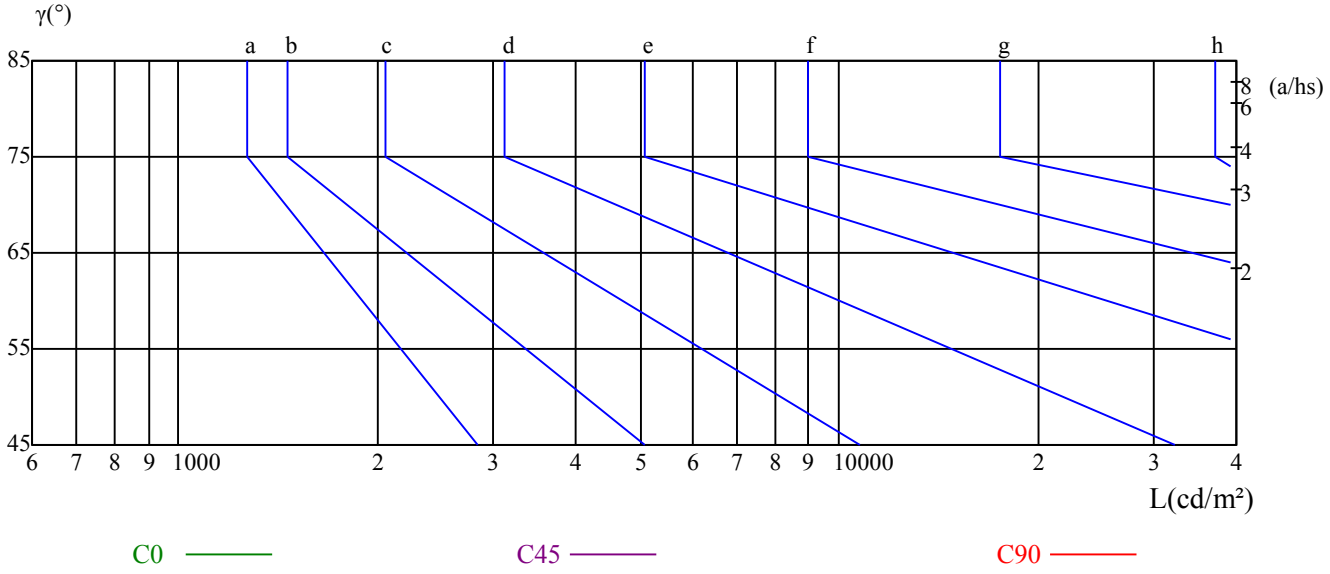
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

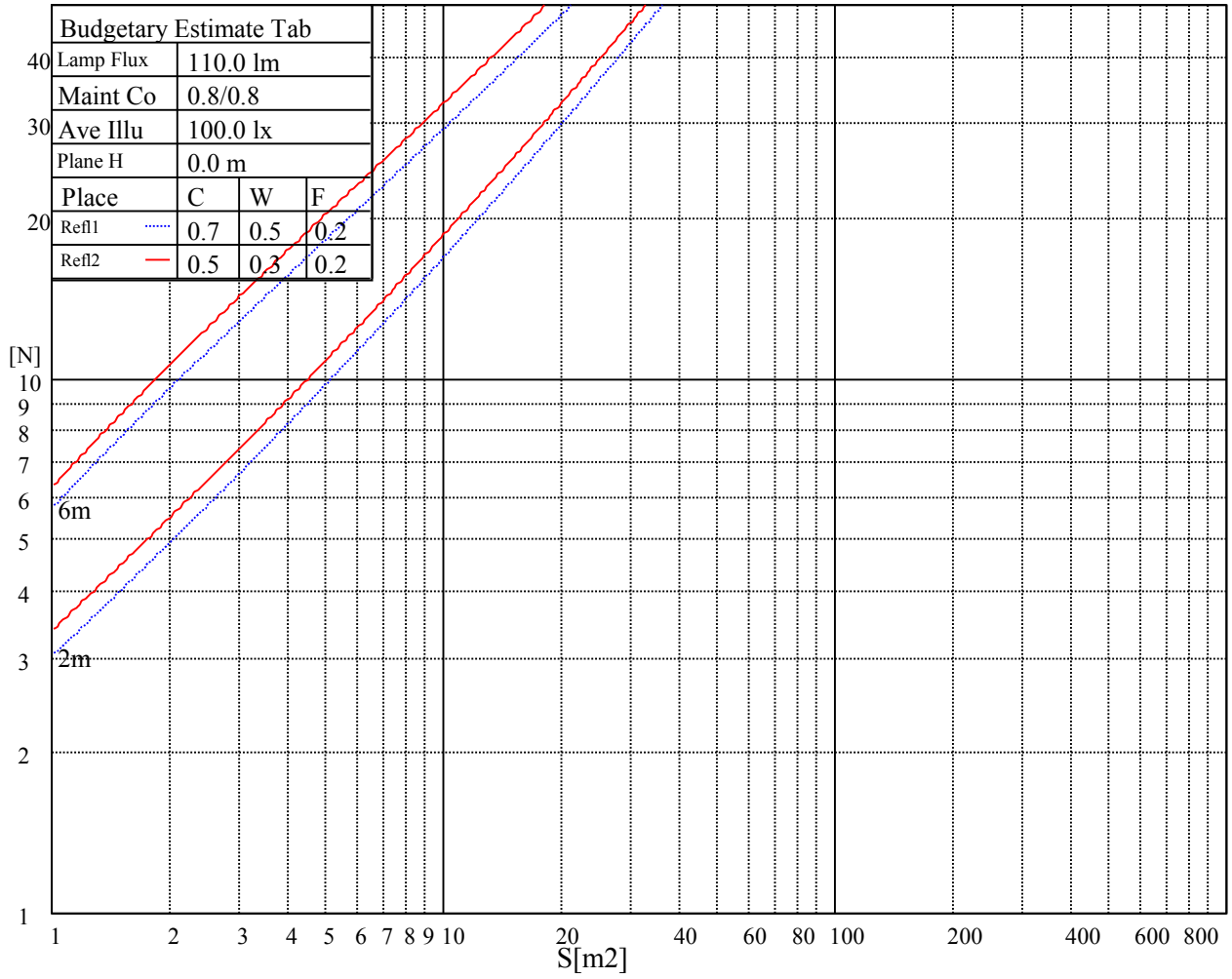
Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limitting Curve



Budgetary Estimate Table

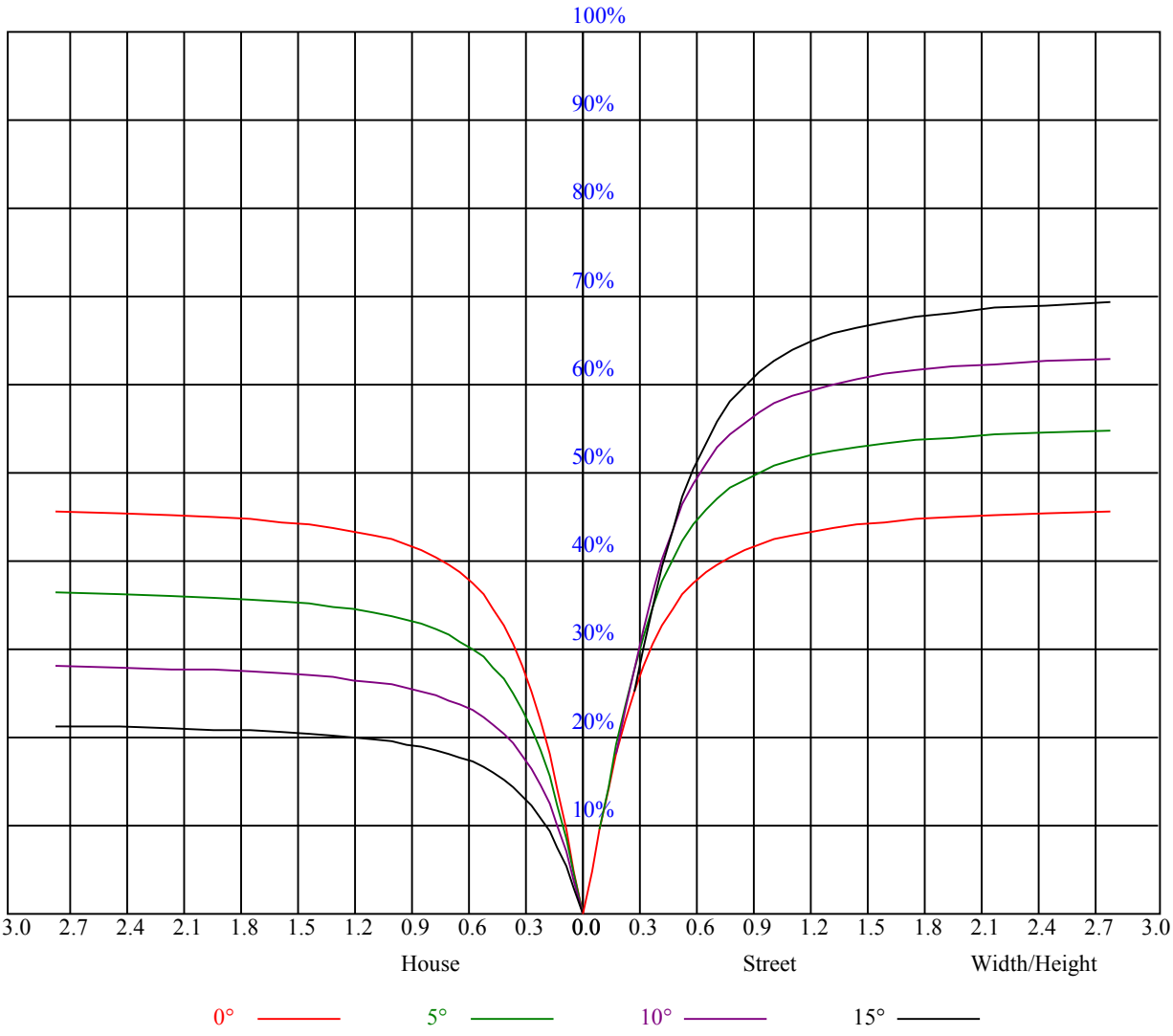


Equipment: GMS1980	Date: 2020/4/1	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.50

Utilization factor table for indoor luminaire

RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.11	1.11	1.11	1.09	1.09	1.09	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.93
1	1.02	0.99	0.96	1.00	0.97	0.95	0.96	0.94	0.92	0.92	0.91	0.89	0.89	0.88	0.87	0.85
2	0.94	0.89	0.86	0.92	0.88	0.85	0.89	0.86	0.83	0.86	0.83	0.81	0.83	0.81	0.79	0.78
3	0.87	0.82	0.77	0.85	0.81	0.77	0.83	0.79	0.75	0.81	0.77	0.74	0.78	0.76	0.73	0.72
4	0.81	0.75	0.71	0.80	0.74	0.70	0.78	0.73	0.69	0.76	0.72	0.69	0.74	0.71	0.68	0.66
5	0.76	0.70	0.65	0.75	0.69	0.65	0.73	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.62
6	0.71	0.65	0.61	0.70	0.65	0.61	0.69	0.64	0.60	0.67	0.63	0.60	0.66	0.62	0.59	0.58
7	0.67	0.61	0.57	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.55
8	0.63	0.58	0.54	0.63	0.57	0.54	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.51
9	0.60	0.55	0.51	0.60	0.54	0.51	0.59	0.54	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.49
10	0.57	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.55	0.51	0.48	0.46

Coefficient Utilization Curve



Equipment: GMS1980	Date: 2020/4/1	Operator: NT07
Temperature(°C): 25.0	Humidity(%): 65.0%	Distance(m): 7.50

Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	185.74	186.30	186.13	184.44	182.36	178.82	175.05	170.10	164.93
45.0	188.66	188.49	187.26	185.79	183.09	179.38	175.22	169.76	164.25
90.0	186.19	184.95	183.21	180.28	176.57	172.69	167.23	161.04	155.08
135.0	186.13	185.34	182.76	180.28	177.24	172.52	167.96	162.51	155.87
180.0	185.74	184.56	182.64	178.99	175.73	171.28	165.71	159.19	153.51
225.0	188.66	187.54	186.02	182.87	179.21	174.77	170.16	163.01	156.99
270.0	186.19	186.53	185.79	183.88	181.52	178.48	172.63	167.68	162.68
315.0	186.13	186.13	185.06	183.60	180.96	176.29	172.52	167.46	160.20
360.0	185.74	186.30	186.13	184.44	182.36	178.82	175.05	170.10	164.93

C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	158.63	151.59	144.62	136.69	128.64	121.11	113.96	105.13	98.44
45.0	157.73	150.41	143.44	133.99	126.96	119.53	113.06	102.88	95.79
90.0	148.73	140.46	133.37	126.45	117.39	110.42	103.44	96.53	88.31
135.0	149.18	142.71	135.06	127.69	119.59	111.54	104.57	96.98	90.06
180.0	146.31	138.71	131.63	123.69	116.27	108.28	100.46	94.16	88.03
225.0	150.53	141.53	134.27	126.73	118.13	109.91	102.77	95.01	88.37
270.0	154.35	147.83	141.86	132.81	124.26	117.90	109.01	101.93	95.18
315.0	154.80	147.26	138.26	131.91	124.43	114.58	108.73	102.04	94.95
360.0	158.63	151.59	144.62	136.69	128.64	121.11	113.96	105.13	98.44

C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	91.86	84.88	78.36	72.96	67.11	62.16	57.26	52.43	48.54
45.0	89.72	81.56	75.04	70.31	63.96	58.67	54.96	49.89	46.13
90.0	82.18	76.16	70.20	64.52	59.79	55.07	50.74	46.63	43.31
135.0	83.81	78.36	71.72	66.60	61.54	56.48	52.09	48.38	44.33
180.0	79.76	74.81	69.36	63.06	58.33	54.06	49.11	45.45	42.08
225.0	81.39	74.87	69.47	63.79	58.44	54.11	50.01	45.28	41.79
270.0	87.13	81.39	75.83	69.24	64.24	59.68	54.34	50.34	46.63
315.0	87.92	81.96	75.66	69.47	64.35	59.06	54.73	50.29	46.13
360.0	91.86	84.88	78.36	72.96	67.11	62.16	57.26	52.43	48.54

C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	44.33	40.61	37.63	34.88	31.78	29.48	27.28	24.86	23.12
45.0	42.69	38.87	36.11	33.36	30.43	28.13	26.16	23.96	22.28
90.0	40.05	36.90	33.98	31.50	29.19	26.72	24.81	23.12	21.15
135.0	40.73	37.91	34.93	32.23	29.87	27.45	25.65	23.51	21.66
180.0	38.31	35.89	32.96	30.04	28.07	25.82	23.57	22.16	20.59
225.0	38.64	35.38	32.46	30.04	27.62	25.37	23.63	21.83	20.31
270.0	42.58	38.93	35.94	33.02	30.26	28.07	25.65	23.85	21.99
315.0	42.69	39.38	35.83	33.19	30.83	28.07	26.04	24.13	22.11
360.0	44.33	40.61	37.63	34.88	31.78	29.48	27.28	24.86	23.12

C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	21.54	19.91	18.34	17.16	15.98	15.02	13.95	13.05	12.26
45.0	20.81	19.29	17.78	16.71	15.58	14.57	13.61	12.71	12.04
90.0	19.80	18.56	17.16	16.03	15.02	13.95	13.22	12.38	11.59
135.0	20.25	18.96	17.33	16.26	15.19	14.12	13.22	12.43	11.64
180.0	18.68	17.61	16.48	15.30	14.23	13.39	12.43	11.59	10.97
225.0	18.79	17.49	16.31	15.19	14.12	13.28	12.54	11.64	10.97
270.0	20.25	18.90	17.55	16.09	15.02	14.12	13.05	12.32	11.53
315.0	20.48	18.96	17.78	16.31	15.30	14.29	13.39	12.49	11.76
360.0	21.54	19.91	18.34	17.16	15.98	15.02	13.95	13.05	12.26

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	11.48	10.74	10.13	9.56	8.83	8.33	7.82	7.31	6.92
45.0	11.25	10.52	9.96	9.45	8.83	8.33	7.82	7.31	6.81
90.0	10.91	10.29	9.62	9.17	8.66	8.04	7.59	7.20	6.75
135.0	10.91	10.29	9.68	9.11	8.55	8.04	7.59	7.20	6.64
180.0	10.29	9.73	9.11	8.55	8.04	7.59	7.14	6.69	6.36
225.0	10.35	9.73	9.00	8.49	7.99	7.43	6.98	6.53	6.19
270.0	10.74	10.07	9.51	8.89	8.38	7.76	7.31	6.92	6.47
315.0	10.97	10.29	9.62	9.00	8.49	7.93	7.43	6.98	6.58
360.0	11.48	10.74	10.13	9.56	8.83	8.33	7.82	7.31	6.92

C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	6.47	6.13	5.74	5.40	5.06	4.78	4.50	4.22	4.05
45.0	6.47	6.08	5.68	5.34	5.01	4.78	4.50	4.28	4.05
90.0	6.36	6.02	5.63	5.29	5.01	4.78	4.50	4.28	4.05
135.0	6.30	5.96	5.57	5.23	5.01	4.67	4.44	4.22	3.94
180.0	5.91	5.63	5.34	5.01	4.73	4.50	4.22	3.99	3.77
225.0	5.79	5.46	5.18	4.89	4.56	4.33	4.11	3.83	3.66
270.0	6.13	5.74	5.46	5.06	4.78	4.56	4.28	3.99	3.83
315.0	6.13	5.79	5.46	5.12	4.84	4.61	4.33	4.05	3.88
360.0	6.47	6.13	5.74	5.40	5.06	4.78	4.50	4.22	4.05

C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.88	3.60	3.43	3.26	3.09	2.98	2.87	2.76	2.59
45.0	3.88	3.60	3.49	3.26	3.15	2.98	2.87	2.76	2.64
90.0	3.88	3.66	3.43	3.32	3.15	3.04	2.93	2.81	2.70
135.0	3.77	3.60	3.43	3.32	3.15	3.04	2.93	2.81	2.76
180.0	3.60	3.43	3.26	3.09	2.98	2.87	2.76	2.64	2.59
225.0	3.49	3.32	3.21	3.04	2.93	2.81	2.64	2.64	2.53
270.0	3.60	3.43	3.26	3.09	2.98	2.87	2.76	2.64	2.53
315.0	3.66	3.54	3.32	3.21	3.04	2.93	2.81	2.64	2.59
360.0	3.88	3.60	3.43	3.26	3.09	2.98	2.87	2.76	2.59

C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	2.53	2.42	2.31	2.25	2.19	2.08	2.03	1.97	1.91
45.0	2.53	2.42	2.36	2.36	2.25	2.19	2.14	2.08	2.08
90.0	2.59	2.53	2.42	2.36	2.31	2.25	2.25	2.19	2.14
135.0	2.64	2.59	2.53	2.42	2.42	2.36	2.25	2.25	2.19
180.0	2.48	2.48	2.42	2.36	2.31	2.31	2.25	2.19	2.19
225.0	2.48	2.42	2.36	2.36	2.25	2.19	2.19	2.14	2.14
270.0	2.48	2.42	2.36	2.25	2.14	2.14	2.08	2.03	2.03
315.0	2.48	2.42	2.36	2.31	2.31	2.25	2.19	2.14	2.14
360.0	2.53	2.42	2.31	2.25	2.19	2.08	2.03	1.97	1.91

C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	1.91	1.80	1.80	1.69	1.58	1.35	0.73	0.56	0.45
45.0	2.03	1.97	1.91	1.86	1.69	1.46	0.96	0.62	0.45
90.0	2.14	2.08	1.97	1.86	1.80	1.63	1.01	0.62	0.51
135.0	2.14	2.14	2.08	2.08	1.97	1.74	1.52	0.73	0.56
180.0	2.19	2.14	2.08	2.03	1.91	1.74	1.01	0.68	0.45
225.0	2.08	2.03	2.03	1.86	1.74	1.46	0.73	0.56	0.39
270.0	1.97	1.86	1.86	1.74	1.63	1.24	0.73	0.51	0.39
315.0	2.08	2.03	1.91	1.80	1.63	0.96	0.62	0.45	0.39
360.0	1.91	1.80	1.80	1.69	1.58	1.35	0.73	0.56	0.45

Intensity data(cd)

C/γ(°)	90.0
0.0	0.34
45.0	0.34
90.0	0.39
135.0	0.39
180.0	0.39
225.0	0.34
270.0	0.34
315.0	0.34
360.0	0.34